DRAFT
EVALUATION REPORT
VERIZON WIRELESS (PINER)
APPLICATION #14154
PLANT #17611

BACKGROUND

Verizon Wireless (Piner) is applying for an authority to construct and permit to operate for the following equipment:

S-1 Diesel engine, John Deere, Model 5030HF270, Model year: 2005, EPA/CARB Engine family name: 5JDXL03.0063, 96 BHP capacity, to power a 60 kW (Standby Power Rating) emergency generator

The proposed IC engine and generator are new equipment.

EMISSION CALCULATIONS

Basis:

1. Emission calculation is based on California Air Resources Board (CARB) certified emission factors.
2. Reliability-related activities are limited to 50 hr/yr.

	NMHC*	NOx*	CO	PM	SO2
g/BHP-hr	0.26	4.89	1.42	0.10	0.15
Annual Average Daily Emissions (lb/day)	0.01	0.14	0.04	0.00	0.00
Plant Cumulative Increase (ton/yr)	0.00	0.03	0.01	0.00	0.00

* The CARB certified combined non-methane hydrocarbon + nitrogen oxides (NMHC+NOx) emission rate is 5.15 g/BHP-hr. Following District policy, the estimated individual emission rates for NMHC and NOx are based on a 5%/95% NMHC/NOx split.

PLANT CUMULATIVE INCREASE

	NMHC	NOx	CO	PM	SO2
Current	0.00	0.00	0.00	0.00	0.00
This project	0.00	0.03	0.01	0.00	0.00
Total	0.00	0.03	0.01	0.00	0.00

RISK SCREEN ANALYSIS

This application triggers health risk screening analysis per Regulation 2-5 (New Source Review of Toxic Air Contaminants) because the PM emissions of the proposed source exceed 0.58 lb/yr. Health risk screening analysis was performed by the Toxics Evaluation Section and documented in the attached report. It was found that the proposed source passes the analysis because the maximum cancer risk is estimated to be less than 4.7 in a million and the source meets the Toxics Best Available Control Technology (TBACT) PM requirement of 0.15 g/bhp-hr or less

BACT DETERMINATION

Since emissions of NOx can potentially exceed 10 lb per highest day, Best Available Control Technology (BACT) is triggered per Regulation 2-1-301. BACT is satisfied because the NOx emission factor of the proposed source is less than 6.9 g/bhp-hr.

OFFSET REQUIREMENT

This application does not require offsets because the plant permitted emissions of precursor organic compounds (NMHC) and NOx pollutants are each below the 10 ton/yr limit of Regulation 2-2-302.

COMPLIANCE DETERMINATION

The proposed emergency standby engine is expected to operate in compliance with Regulation 6-303 (Ringelmann No. 2 Limitation), Regulation 6-310 (Particulate Weight Limitation, 0.15 gr/dscf), Regulation 9-1-304 Fuel Burning (<0.5% S by weight) and Regulation 9-8-330 (Emergency Standby Engines, Hours of Operation).

This source triggers the New Source Review rule and Toxics Review rule. The BACT and TBACT requirements of Regulations 2-2-301 and 2-5-301 are met.

This source complies with the State ATCM for diesel particulate: CARB-certified emissions $\leq$ 0.15 g/bhp-hr and no more than 50 hr/yr of non-emergency use.

Federal New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAPS) requirements are not applicable.

This application is exempt from the California Environmental Quality Act (CEQA) because the permit review is ministerial and covered by Permit Handbook Chapter 2.3.

This source is located within 1,000 feet of the outer boundary of North Valley School, therefore school public notice will be carried out.

CONDITIONS (ID #22850)

1. Operating for reliability-related activities is limited to 50 hours per year per engine.
   [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations,subsection (e)(2)(A)(3) or (e)(2)(B)(3)]

2. The owner or operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, state or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating hours while mitigating emergency conditions or while emission testing to show compliance with District, state or Federal emission limits is not limited.

   [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]]

3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained.

   [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(G)(1)]

4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
   a. Hours of operation for reliability-related activities (maintenance and testing).
   b. Hours of operation for emission testing to show compliance with emission limits.
   c. Hours of operation (emergency).
   d. For each emergency, the nature of the emergency condition.
   e. Fuel usage for each engine(s).

   [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(I), (or Regulation 2-6-501)]

5. At School and Near-School Operation:
   If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:
   The owner or operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:
   a. Whenever there is a school sponsored activity (if the engine is located on school grounds).
   b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session "School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property.

   [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(1)] or (e)(2)(B)(2)]

RECOMMENDATION

I recommend that an authority to construct be issued to Verizon Wireless (Piner) for the following equipment subject to school public notice:

S-1 Diesel engine, John Deere, Model 5030HF270, Model year: 2005, EPA/CARB Engine family name: 5JDXL03.0063, 96 BHP capacity, to power a 60 kW (Standby Power Rating) emergency generator

EXEMPTION

None.

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Hon-ting Man
Air Quality Engineer II
September 28, 2006